

# Purchase Order Receipt Listing

Tuesday, November 22, 2016 1:21:06 PM

All amounts are calculated in domestic currency.

All Vendors PO ID PO34359 All Receipt Dates All Line Item Types  
All Item ID/GL/WOs All Rec. Employees All Currencies  
Grouped by Vendor ID

Purchase Order ID/ Curr Type	Line Nbr/ Insp Req	Project ID	Reference/ Description/ Cert Std	PO U/M / Stock U/M	Required Date Required Qty	Recv Date/ Recv Emp	Recv Qty (PO U/M)	Cost Per Unit/ Recv Value	Inspected Qty/ Rejected Qty (PO U/M)	MRB Qty/ MRB Reject Qty	Book Amt
Vendor ID/Vendor Name	VU-TWWM001 TW Metals										
PO34359	1		M6061T6T0.375W.05 f 8		11/24/2016	11/22/2016	60.0000		0.0000	0	\$0.00
USD	No		6061-T6 RD Tube .375 x.058W m136196	f	60.0000	PLOU01			0.0000	0	
	2		M6061T6T0.500W.05 f 8		11/24/2016	11/22/2016	120.0000		0.0000	0	\$0.00
	No		6061-T6 RD Tube .500 x.058W m136196	f	120.0000	PLOU01			0.0000	0	
	3		71401-45		11/24/2016	11/22/2016	1.0000		0.0000	0	\$0.00
	No		PROCUREMENT QUALITY CLAUSES m136196		1.0000	PLOU01			0.0000	0	

Total Received Quantity:  
Total Qty to Inspect (PO U/M): 181.0000  
Total Reject Quantity: 0.0000  
Total Receipt Value: 0.0000  
Total Balance Due Quantity: \$0.00 0.0000



O'Neal High-Performance Metals Group



**Packing  
Slip**

ORDER NO.: 60619999

FROM: CRAN

PAGE 1

CUST NUMBER: 1203820    NET WGT: 15.430    REQ.DATE: 11/23/16    CONFIRMED  
SOLD TO: SHIP TO:  
DART AEROSPACE LTD    DART AEROSPACE LTD  
1270 ABERDEEN ST    1270 ABERDEEN ST  
HAWKESBURY ON    HAWKESBURY ON  
CANADA    CN K6A 1K7    ONTARIO CANADA    CN K6A 1K7

SALESPERSON: DONNA SMALLEY    SHIP BY: 11/18/16  
TERMS: NET 30 DAYS    VIA: COMMON CARRIER  
F.O.B.: SHIPPING POINT    FREIGHT: PREPAID  
CUST ORD NO.: PO34359    RELEASE NO.:  
RECEIVING PHONE:

LINE	ITEM DESCRIPTION	WIDTH	LENGTH
0001	41952 D6061-T6 3/8 OD X .058 WA	12 FT	ML

CLN#	ORD QTY	INVOICE QTY	SHIPPED QTY	WT
	60.000 FT	60.000 FT	60.000 FT	4.068

PCS  
5

\*\* 1 TEST REPORTS REQUIRED \*\*

\*\* 1 CERTS REQUIRED \*\*

ECCN: EAR99    Export License: NLR    Expiration Date: 0/00/00  
PO:49347470 HT:111040    PC: 5    CUSTOMER QTY: 60.000    UOM FT  
MLT:UNITED STATES    MFG:UNITED STATES    SLB/CL:402873

LINE	ITEM DESCRIPTION	WIDTH	LENGTH
0002	58152 D6061-T6 1/2 OD X .058 WA	12 FT	ML

CLN#	ORD QTY	INVOICE QTY	SHIPPED QTY	WT
	120.000 FT	120.000 FT	120.000 FT	11.362

PCS  
10

\*\* 1 TEST REPORTS REQUIRED \*\*

\*\* 1 CERTS REQUIRED \*\*

ECCN: EAR99    Export License: NLR    Expiration Date: 0/00/00  
PO:49300447 HT:1020821001113    PC: 10    CUSTOMER QTY: 120.000    UOM FT  
MLT:TAIWAN    MFG:TAIWAN    SLB/CL:1020821001113

BROKERS KUEHNE AND NAGEL LTD

AREA	TYPE OF PKG	PKGS	GRS WEIGHT	WIDTH	LENGTH	HGHT
B	CARTON	1.000	20.000		12.5000	
		1.000	20.000			

BY: TW  
RT 000-

UNLOAD TYPE: NONE SPECIFIED

DATE SHIPPED \_\_\_\_\_

DATE FILLED \_\_\_\_\_

**THANK YOU FOR THIS ORDER**

TERMS AND CONDITIONS APPLICABLE TO THE SALE OF THESE  
PRODUCTS ARE SET FORTH ON OUR WEBSITE FOR YOUR CAREFUL  
REVIEW.  
<http://www.twmetals.com/invoice-terms.html>



PAGE 2

TERMS AND CONDITIONS APPLICABLE TO THE SALE OF THESE  
PRODUCTS ARE SET FORTH ON OUR WEBSITE FOR YOUR CAREFUL  
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A COMPANY OF MUELLER INDUSTRIES

PRECISION TUBE CO.  
287 WISSAHICKON AVE.  
NORTH WALES PA 19454

Control No: 930

### CERTIFIED TEST REPORT

CUSTOMER PURCHASE ORDER NO.	CUST. ORD. NO.	PRECISION TUBE P/N
49347470 LINE 001	402873	24A037500580006

**SOLD:** TW METALS  
**TO** 235 TUBEWAY  
CAROL STREAM, IL 60188  
UNITED STATES

**SHIP:** TW METALS  
**TO** 235 TUBEWAY  
CAROL STREAM, IL 60188  
UNITED STATES

QUANTITY ORD.	DESCRIPTION	QTY. SHIPPED	DATE SHIPPED
4704 FT	METAL - 6061 ALUM TEMPER - T6 SPEC - AMS 4082P AMS-WW-T-700/60 ASTM-B-210-12 LENGTH - 12 FT LGTH TOL +.1250 IN -.0000 IN SHAPE - ROUND FINISH - STRAIGHT EXACT LENGTHS OD .3750 +.0030 -.0030 ID .0580 +.0040 -.0040 WALL .0580 +.0040 -.0040	4992 FT	05/17/16



### MECHANICAL PROPERTIES

SAMPLE #	TENSILE STRENGTH (P.S.I.)	YIELD STRENGTH (P.S.I.)	ELONGATION IN 2 INCHES (%)	ROCKWELL HARDNESS	AVERAGE GRAIN SIZE (MM.)
1	45,627	40,428	17		

### DESTRUCTIVE TESTS

FLATTENING: PASS

DAS

14

Comments:

9-89

16/11/23

### NON-DESTRUCTIVE TESTS

EDDY CURRENT: PASS

### CHEMICAL COMPOSITION

ALLOY:	6061	HEAT:	TRACEABILITY #:						111040
			RAW MATL VENDOR:						PTC1425 - Kaiser Aluminum
	Si	Fe	Cu	Mn	Mg	Cr	Zn	Ti	Al
Min	0.40		0.15		0.80	0.04			Rem.
Max	0.80	0.70	0.40	0.15	1.20	0.35	0.25	0.15	
OTHER ELEMENTS: 0.05 MAX EACH / 0.15 MAX TOTAL									

We hereby certify that the material has been manufactured and tested in accordance with the requirements of the applicable specifications and descriptions set forth on Precision Tube's sales acknowledgement. During the manufacturing, testing and inspection, the product did not come into direct contact with mercury or any of its compounds, nor with any mercury containing device employing a single boundary containment. Test results indicate that the material is compliant with the current revision of the RoHS Directive (2011/65/EU).

Melted and Manufactured in USA  
QMS Registered to ISO 9001: 2008

By: Art Onalitis  
Art Onalitis  
QA Manager

05/17/16

Page: 1 of 1

UMB

# KAISER ALUMINUM

FABRICATED PRODUCTS

*Best in Class*

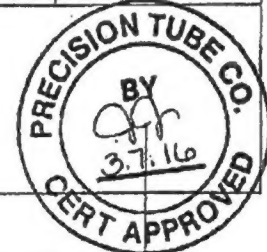
## CERTIFIED TEST REPORT

<http://Online.KaiserAluminum.com>

KAISER ALUMINUM  
FABRICATED PRODUCTS, LLC  
2425 STEVENS DRIVE  
RICHLAND, WA 99352

TW METALS  
TEST  
MAY 23 16  
ACCEPTED BY *MB*

CUSTOMER PO NUMBER: PTC1425		CUSTOMER PART NUMBER: SPIRIT-371850		PRODUCT DESCRIPTION: 5.400 LB/PC 500 LB/0 LB 1.312 OD X .085 WALL ESRT	
KAISER ORDER NUMBER: 319936	LINE ITEM: 001	SHIP DATE: 02/26/2016	KAISER LOT NUMBER: 50751-320	ALLOY: 6061	TEMPER: O
WEIGHT SHIPPED: 16980.000 LB	QUANTITY: 3057.000 PCS	B/L NUMBER: 004962	DIAM/DAF/THKNS: 	WIDTH: 	LENGTH: 13.984 FT
SHIP TO:  PRECISION TUBE CO 287 WISSAHICKON AVENUE N. WALES, PA 19454 USA			SOLD TO:  MUELLER INDUSTRIES, INC PRECISION TUBE 8285 TOURNAMENT DRIVE STE. 150 MEMPHIS, TN 38125 USA		



### Actual Physical Properties

REFERENCE	DASH#	SAMPLE#	UTS(KSI)	YTS(KSI)	%Elong in 2	HARDNESS	CONDUCT.	BEND
50751-320	0001	0002	17.5	5.1	27.4	NA N/A	N/A	N/A
50751-320	0001	0003	17.7	5.9	27.6	NA N/A	N/A	N/A
50751-320	0001	0004	18.1	6.2	25.2	NA N/A	N/A	N/A
50751-320	0001	0005	17.7	4.8	27.9	NA N/A	N/A	N/A
50751-320	0001	0006	18.1	5.6	27.0	NA N/A	N/A	N/A
50751-320	0001	0007	17.7	5.3	28.5	NA N/A	N/A	N/A
50751-320	0001	0008	18.0	5.5	29.2	NA N/A	N/A	N/A
50751-320	0001	0009	17.3	4.5	26.6	NA N/A	N/A	N/A
50751-320	0001	0010	17.0	5.9	27.9	NA N/A	N/A	N/A
50751-320	0001	0011	18.0	6.1	28.7	NA N/A	N/A	N/A
50751-320	0001	0012	17.3	5.8	27.2	NA N/A	N/A	N/A
50751-320	0001	0013	17.3	5.0	28.3	NA N/A	N/A	N/A
50751-320	0001	0014	17.7	6.3	27.2	NA N/A	N/A	N/A
50751-320	0001	0015	17.5	6.0	28.2	NA N/A	N/A	N/A
50751-320	0001	0016	16.8	5.6	25.4	NA N/A	N/A	N/A
50751-320	0001	0017	17.0	5.0	25.8	NA N/A	N/A	N/A
50751-320	0001	0001	17.0	5.9	27.9	N/A	N/A	N/A

### Chemical Composition (wt%), Aluminum Remainder

LIMITS	Si	Fe	Cu	Mn	Mg	Cr	Zn	Ti	Pb	Bi	Zr	Ea	Tot
Maximum	0.80	0.70	0.40	0.15	1.20	0.35	0.25	0.15	NA	NA	NA	0.05	.15
Minimum	0.40	0.00	0.15	0.00	0.80	0.04	0.00	0.00	NA	NA	NA	0.00	.0
F75645	.60	.30	.22	.05	.98	.10	.06	.02	.00	.00	.00	.01	.02
F75642	.61	.32	.22	.05	.96	.09	.06	.02	.00	.00	.00	.01	.02

### Applicable Requirements:

ASTM-B241-12 NON-STENCILED ASTM-B221-13 ASTM-B345-11 AMS-QQ-A-200/B 97(R07) TYPE I  
UNS#A96061 Also conforms to EN 10204 3.1

Plant Serial: 00013627  
Kaiser Order Number: 319936  
Line Item: 001

**KAISER**  
**ALUMINUM**  
**FABRICATED PRODUCTS**

KAISER ALUMINUM  
FABRICATED PRODUCTS, LLC  
2425 STEVENS DRIVE  
RICHLAND, WA 99352

*Best in Class*

**CERTIFIED TEST REPORT**

<http://Online.KaiserAluminum.com>

**Miscellaneous Notes**

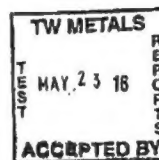
MANUFACTURED IN USA MELTED IN USA  
MERCURY IS NOT A NORMAL BACKGROUND ELEMENT IN ALUMINUM ALLOYS. NEITHER MERCURY NOR ANY  
OF ITS COMPOUNDS ARE UTILITZED BY KAISER ALUMINUM IN THE MANUFACTURE OF THIS MATERIAL.

**CERTIFICATION**

Kaiser Aluminum Fabricated Products, LLC hereby certifies that metal shipped under this order has been  
inspected and tested and found in conformance with applicable specifications forming a part of the  
description set forth in Kaiser's sales acknowledgement form. Any warranty is limited to that shown on  
Kaiser's general terms and conditions of sale. Test reports are on file, subject to examination.

JOSEPH AMES, QUALITY MANAGER

*Jph*



Plant Serial: 00013627  
Kaiser Order Number: 319936  
Line Item: 001



# YE FONG ALUMINIUM INDUSTRIAL

No. 12-10, Dongshi, Dongning Village, Xinyu Township,

Taoyuan County 32747, Taiwan, R.O.C

Tel: +886-3-4773677 Fax: +886-3-4972333 Email: ye-fong@ye-fong.com



## Certificate of Quality

Sold by: Ye Fong Aluminium Industrial Ltd. (MADE IN TAIWAN)

Ship to: TW METALS-NY

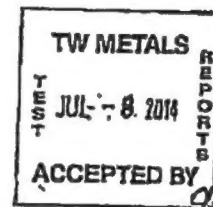
Order No.: M49300447

Material: 6061-T6

Quantity: 418pcs (475.32lbs)

Lot No.: 10208210011-13

Specification: ASTM B210-12; WW-T-700/6F; AMS 4082P; AMS-WW-T-700/6B



No.	Contents	Requirement	Unit
1	Dimension	OD 0.500" X ± 0.058" X 12"	
2	Tensile Strength	≥ 42	ksi
3	Yield Strength	≥ 35	ksi
4	Elongation	≥ 12	%
5	Hardness		
6	Chemical Composition		

Si	Fe	Cu	Mn	Mg	Cr	Zn	Ti	Other Max	Other Total	Al
0.40-0.8	≤ 0.7	0.15-0.40	≤ 0.15	0.8-1.2	0.04-0.35	≤ 0.25	≤ 0.15	≤ 0.05	≤ 0.15	Rem

Remark: We certify that the material is free from mercury contamination.

### Actual Measurement

No.	Contents	Measurement	Unit
1	Dimension	OD 0.500" X ± 0.058" X 12"	
2	Tensile Strength	48.09	ksi
3	Yield Strength	40.52	ksi
4	Elongation	20.00	%
5	Hardness	DAS 14 9-89	
6	Chemical Composition		

Si	Fe	Cu	Mn	Mg	Cr	Zn	Ti	Other Max	Other Total	Al
0.57	0.154	0.275	0.0927	0.899	0.123	0.0374	0.0247	0.0088	0.02294	Rem

Checked by: C.C. Huang

Date: 14 May 2014

Signature: C.C. Huang

Approved by: K.H. Tseng

Date: 14 May 2014

Signature: K.H. Tseng

Verified by: HAO. Lee

Date: 14 May 2014

Signature: HAO. Lee

Company Stamp

QP-014



Only Stamped Certificate Valid

408



# MATERIAL RECEIPT INSPECTION FORM

MATERIAL: M6061T6 TO .500W.058

PO / BATCH NO.: 34359/136196

DATE: 11/11/23

MATERIAL CERT REC'D: yes

THICKNESS ORDERED: .500

QUANTITY RECEIVED: 120'

THICKNESS RECEIVED: .500

QUANTITY INSPECTED: 120'

SHEET SIZE ORDERED: \_\_\_\_\_

QUANTITY REJECTED: \_\_\_\_\_

SHEET SIZE RECEIVED: \_\_\_\_\_

DESCRIPTION	NCR (Check Y/N)	COMMENTS
SURFACE DAMAGE	Y <input checked="" type="checkbox"/> N	
CORRECT FINISH	<input checked="" type="checkbox"/> Y N	
CORROSION	Y <input checked="" type="checkbox"/> N	
CORRECT GRAIN DIRECTION	<input checked="" type="checkbox"/> Y N	
CORRECT MATERIAL	<input checked="" type="checkbox"/> Y N	<u>6061T6</u>
CORRECT THICKNESS	<input checked="" type="checkbox"/> Y N	<u>.500</u>
PHOTO REQUIRED	Y <input checked="" type="checkbox"/> N	
CORRECT MATERIAL	<input checked="" type="checkbox"/> Y N	<u>ASTM B210</u>
CORRECT REF # TO LINK CERT	<input checked="" type="checkbox"/> Y N	<u>HEAT# 102082100.1113</u>
CORRECT MATERIAL IDENTIFICATION	<input checked="" type="checkbox"/> Y N	<u>M6061T6 TO .500W.058</u>
CORRECT M# ON THE MATERIAL	<input checked="" type="checkbox"/> Y N	<u>M136196</u>
DOES THIS MATERIAL REQUIRE ENGINEERING SIGN OFF	Y <input checked="" type="checkbox"/> N	
DOES THIS REQUIRE AN EXTRUSION REPORT	Y <input checked="" type="checkbox"/> N	

CUT SAMPLE PIECE OF MATERIAL AND PERFORM A HARDNESS CHECK.  
RECORD RESULTS BELOW

	HRC	HRB	DUR A	DUR D
TYPE OF MATERIAL				
SIZE OF TEST SAMPLE				
HARDNESS / DUROMETER READING				

testers located in the Quality Office

QC 18 INSPECTION	ENGINEERING SIGNOFF (if required)
INSPECTED BY: <u>DAS</u> <u>14</u> <u>9.89</u>	SIGNED OFF BY: _____
DATE: <u>11/11/23</u>	DATE: _____

Attach this inspection sheet with the corresponding material cert and remit to be scanned and received in



# MATERIAL RECEIPT INSPECTION FORM

MATERIAL: M6061T6 T.375 W.058

PO / BATCH NO: 34359/136196

DATE: 11/11/23

MATERIAL CERT REC'D: yes

THICKNESS ORDERED: .375

QUANTITY RECEIVED: 60

THICKNESS RECEIVED: .375

QUANTITY INSPECTED: 60

SHEET SIZE ORDERED: \_\_\_\_\_

QUANTITY REJECTED: \_\_\_\_\_

SHEET SIZE RECEIVED: \_\_\_\_\_

DESCRIPTION	NCR (Check Y/N)	COMMENTS
SURFACE DAMAGE	Y <input checked="" type="radio"/> N	
CORRECT FINISH	<input checked="" type="radio"/> Y N	
CORROSION	Y <input checked="" type="radio"/> N	
CORRECT GRAIN DIRECTION	<input checked="" type="radio"/> Y N	
CORRECT MATERIAL	<input checked="" type="radio"/> Y N	<u>M6061T6</u>
CORRECT THICKNESS	<input checked="" type="radio"/> Y N	<u>.375</u>
PHOTO REQUIRED	Y <input checked="" type="radio"/> N	
CORRECT MATERIAL	<input checked="" type="radio"/> Y N	<u>ASTM B210</u>
CORRECT REF # TO LINK CERT	<input checked="" type="radio"/> Y N	<u>HEAT # 111040</u>
CORRECT MATERIAL IDENTIFICATION	<input checked="" type="radio"/> Y N	<u>M6061T6 T0.375 W.058</u>
CORRECT M# ON THE MATERIAL	<input checked="" type="radio"/> Y N	<u>M136196</u>
DOES THIS MATERIAL REQUIRE ENGINEERING SIGN OFF	Y <input checked="" type="radio"/> N	
DOES THIS REQUIRE AN EXTRUSION REPORT	Y <input checked="" type="radio"/> N	

CUT SAMPLE PIECE OF MATERIAL AND PREFORM A HARDNESS CHECK. RECORD RESULTS BELOW					
TYPE OF MATERIAL SIZE OF TEST SAMPLE HARDNESS / DUROMETER READING	HRC	HRB	DUR A	DUR D	

testers located in the Quality Office

QC 18 INSPECTION	ENGINEERING SIGNOFF (if required)
<p>INSPECTED BY: <u>DAS</u> <u>14</u> <u>9-89</u></p> <p>DATE: <u>11/11/23</u></p>	<p>SIGNED OFF BY: _____</p> <p>DATE: _____</p>

Attach this inspection sheet with the corresponding material cert and remit to be scanned and received in



Dart Aerospace Ltd.  
1270 Aberdeen Street  
Hawkesbury, ON K6A 1K7  
Tel: 613 632 9577  
Fax: 613 632 1053

## PURCHASE ORDER

Purchase Order ID **PO34359**

Purchase Order Date 11/17/2016

PO Print Date 11/17/2016

Page Number 1 of 2

**Order From :**

VU-TWM001

**Ship To :** DART AEROSPACE LTD

TW METALS  
PO BOX 933014  
ALTANTA, GA 31193-3014  
US

1270 ABERDEEN  
HAWKESBURY, ON K6A 1K7  
CANADA

E-MAILED

NOV 17 2016

**Contact Name**

**Vendor Phone**

585 768 5600

**Ship To Contact**

**Ship To Phone**

**Ship Via:**

YRC COLLECT

**Ship Acct:**

**Buyer**

Chantal Lavoie

**Customer POID**

**Customer Tax #**

10127-2607

**Terms**

Net 30

**Currency**

USD

**FOB**

FCA - (Free Carrier)

Line Nbr	Reference Vendor Part Number Line Comments Delivery Comments	Description/ Mfg ID	Req Date/ Taxable Promise Date	CD	Req Qty/ Unit of Measure	PO Unit Price	Extended Price
1	M6061T6T0.375W.058 ✓	6061-T6 RD Tube .375 x.058W	11/24/2016 Yes 11/24/2016		60.00 ✓ f	\$2.15	\$129.00
MATERIAL: 6061-T6/T62/T6510/T6511 SEAMLESS TUBING AS PER WW-T-700/6 OR QQ-A-200/8 OR QQ-A-225/8 OR AMS 4080 OR AMS 4082 OR AMS 4083 OR ASTM B210 OR ASTM B241							
Line Total:							\$129.00
2	M6061T6T0.500W.058 ✓	6061-T6 RD Tube .500 x.058W	11/24/2016 Yes 11/24/2016		120.00 ✓ f	\$1.75	\$210.00
MATERIAL: 6061-T6/T62/T6510/T6511 SEAMLESS TUBING AS PER WW-T-700/6 OR QQ-A-200/8 OR QQ-A-225/8 OR AMS 4080 OR AMS 4082 OR AMS 4083 OR ASTM B210 OR ASTM B241							
Line Total:							\$210.00

SP/6-11-22

Note:

11/17/2016



Dart Aerospace Ltd.  
1270 Aberdeen Street  
Hawkesbury, ON K6A 1K7  
Tel: 613 632 9577  
Fax: 613 632 1053

## PURCHASE ORDER

Purchase Order ID PO34359

Purchase Order Date 11/17/2016

PO Print Date 11/17/2016

Page Number 2 of 2

**Order From :**  
TW METALS  
PO BOX 933014  
ALTANTA, GA 31193-3014  
US

VU-TWM001

**Ship To :** DART AEROSPACE LTD  
1270 ABERDEEN  
HAWKESBURY, ON K6A 1K7  
CANADA

**Contact Name**  
**Vendor Phone** 585 768 5600  
  
**Ship To Contact**  
**Ship To Phone**  
**Ship Via:** YRC COLLECT  
**Ship Acct:**

**Buyer** Chantal Lavoie  
**Customer POID**  
**Customer Tax #** 10127-2607  
**Terms** Net 30  
**Currency** USD  
**FOB** FCA - (Free Carrier)

3	71401-45	PROCUREMENT QUALITY CLAUSES	11/24/2016	1.00	✓	\$0.00	\$0.00
---	----------	--------------------------------	------------	------	---	--------	--------

No

Procurement Quality Clauses  
A005 right of entry  
A012 chemical and physical test report  
A016 personnel qualification  
A017 raw material identification  
A026 certification of material conformance  
A041 quality management system  
A042 dart notification by supplier  
A043 retention of quality documents

11/24/2016

Spoke-11-22

**Line Total:** \$0.00

**PO Total:** \$339.00

W  
CL

**Note:** Terms & Condition of Purchasing(Suppliers) and Procurement Quality Clauses are an integral part of our AS9100 requirements. To learn in detail, please visit [www.dartaerospace.com](http://www.dartaerospace.com) for further explanation.

Change Nbr: 1

Change Date: 11/17/2016